

ARGUMENTS

The Office Action mailed December 11, 2007 has been carefully considered. Within the Office Action Claims 2, 4-7, 10, 22-25, 27 and 28 have been rejected. Applicants have amended Claims 2, 22, and 28. Reconsideration in view of the following remarks is respectfully requested.

The 35 U.S.C. § 101 Rejection

Claims 22-25 and 27 were rejected under 35 U.S.C. § 101, as allegedly not containing statutory subject matter. This rejection is respectfully traversed. However, to expedite prosecution of the present application, Applicant has amended Claim 22 to recite *inter alia*, “A computer readable medium encoded with a computer program having code capable of being read by a processor.” Applicant submits that Claim 22 is directed to statutory subject matter and the rejection is overcome. Withdrawal of the rejection is respectfully requested.

The First 35 U.S.C. § 103 Rejection

Claims 2, 4, 10, 22, 24, 27 and 28 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chang et al. (referred to Chang ‘351), in view of Thorner et al. (hereinafter “Thorner”). The Applicant respectfully traverses.

In determining obviousness four factual inquiries must be looked into in regards to determining obviousness. These are determining the scope and content of the prior art; ascertaining the differences between the prior art and the claims in issue; resolving the level of ordinary skill in the pertinent art; and evaluating evidence of secondary consideration. Graham v. John Deere, 383 U.S. 1 (1966); KSR Int’l Co. v. Teleflex, Inc., No 04-1350 (U.S. Apr. 30,

2007) (“Often, it will be necessary . . . to look into related teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit.**”)
(emphasis added).

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention **as a whole** would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fed. Cir. 1983) (emphasis added). Thus, when considering the whole prior art reference its entirety, portions that would lead away from the claimed invention must be considered. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983), See M.P.E.P. 2141.02. Thus, it is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731 (Fed. Cir. 1983).

One skilled in the art would have absolutely no motivation to combine Chang with Thorner whereby the combination would teach or suggest the claimed subject matter. Under the Graham factors, the scope and content of the prior art must be observed in making a *prima facie* case of obviousness. One skilled in the art reading Thorner would understand that the scope and content of Thorner is directed to a tactile feedback system for computer and video game systems and, more particularly, to a universal tactile feedback system for computer and video game systems which provides real time tactile feedback to enhance a user's experience while interacting with a computer/video game or simulation. (Thorner, Col. 1, Lines 13-18) (emphasis added). For instance, a user utilizing Thorner's system would be playing a video game, whereby

Thorner's system would output tactile feedback in real time via a seating unit. (Thorner, Col. 2, Lines 17-20). In contrast, one skilled in the art reading Chang would realize that the scope and content of Chang's inventive subject matter is an iterative design interface tool which allows a user to develop and design haptic effects and apply a synchronizing sound to the haptic effect which is then programmed in the software. It is thus evident that the scope and content of the two references are directed to different cycles in the production and execution of the software program. In particular, Chang system is used in developing force feedback effects when writing code and producing the software program, whereas Thorner analyzes the sounds from the running software program to produce the force feedback effects when the user is actually playing the software program on his or her computer. In other words, there would be no apparent reason to use Thorner's disclosure to produce haptic effects from sounds when the entire purpose of Chang is to develop haptic effects and assign a synchronizing sound with the developed haptic effects. Therefore, one skilled in the art would have no apparent reason to combine Chang with Thorner in reaching the claimed subject matter considering that the two references are used at completely different times in the software cycle.

In addition, the scope and content of Chang does not teach or suggest outputting a haptic effect from analyzed stored sound data. Figures 3, 4, and 6-8 illustrate the details of the system and how a developer would use the graphical user interface of the system to design force effects. Chang's system deals with the problem in the design community with the prior art in that the programmer of force feedback applications does not have an intuitive sense as to how forces will feel when adjusted in certain ways, and thus must go to great effort to develop characteristics of forces that are desired for a specific application. (Chang, Col. 1, Line 66-Col. 2, Lines 4). Chang mentions that this method is cumbersome because it is often not intuitive how a parameter will affect the feel of a force as it is actually output on the user object and the programmer often

may not even be close to the desired force sensation with initial parameter settings. (Chang, Col. 2, Lines 12-16). In this vein, Chang states,

Furthermore, designers may have a difficult time synchronizing force sensations with sounds that the designer wishes to have played in conjunction with the force sensation. For example, a particular force sensation such as a collision is often accompanied by an appropriate sound to present the experience more effectively to an end user. However, it can be difficult to design a force sensation that is well-synchronized with a sound. Thus, a tool is needed for assisting the programmer or developer in intuitively and easily setting force feedback characteristics to provide desired force sensations and synchronize sounds with those force sensations.

(Chang, Col. 2, Lines 21-32) (emphasis added). In other words, one skilled in the art would realize that Chang teaches a developer's system in which force sensations are developed and to which sounds can be applied such that the applied sound is synchronously played along with the haptic effect developed using Chang's system. As an example, Chang describes that the user can attach a sound file (e.g. .wav) to the designed force effect and play the force effect along with the sound to determine whether the sound and force effect would provide the end user with the desirable haptic experience. (Chang, Col. 14, Lines 56-59) (emphasis added).

The Examiner points to one sentence in Chang to make an indirect suggestion that whenever a sound is output, the associated force is output. However, one skilled in the art would realize that the statement is meant that sound might be assigned to a force sensation, as described above in Applicant's reply. In the alternative (or vice-versa as stated in Chang), a force sensation may be assigned to a sound. However, it is an extreme mental leap to make the argument that the term "vice versa" would lead one skilled in the art to believe that the Chang taken as a whole is even capable of analyzing sound data and producing haptic effects from the analyzed sound data, especially taking into consideration the other teachings of Chang. For at least these reasons, one skilled in the art would have no motivation to combine Chang with Thorner in reaching the claimed embodiments.

Assuming *arguendo* that one skilled in the art were to combine Chang with Thorner, the combination would not teach or suggest all the claim limitations in Claims 2, 22 and 28. Neither Chang nor Thorner teach or suggest that the sound data is to be analyzed by a processor to output a haptic effect from the analyzed sound data. Additionally, neither Chang nor Thorner describe the executed haptic effect is based on the determined one or more sound features to at least one or more frequency ranges wherein the sound features are determined by analyzing each frequency range, as recited in Claims 2, 22, and 28. For at least these reasons, a *prima facie* case of obviousness has not been established, and Claims 2, 22 and 28 are allowable over the cited prior art.

As to dependent claims 4, 10, 24 and 27, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

The Second 35 U.S.C. § 103 Rejection

Claims 6, 7 and 25 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chang in view of Thorner and further in view of Finberg (U.S. 5,842,163) (referred to Finberg). This rejection is respectfully traversed. As to dependent claims 6, 7, and 25, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

Conclusion

It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

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